

light spectrum of the system. This can be used in emissive displays and in solid state lighting devices.--

Please replace the paragraph beginning at p.6, line 3, with the following rewritten paragraph:

--An object of this invention is a coating method for particles which provides greater coating uniformity, greatly decreased agglomeration of the particles and greater coating continuity compared to coatings prepared by other methods.--

Please replace the paragraph beginning at p.9, line 3, with the following rewritten paragraph:

--In order to fully coat the particles or provide complete hermeticity, it may be necessary to coat the particles more than once. Also, particles made from the coating material, can also be present since volume of the coating material on a particle is unexpectedly high. To demonstrate the unexpectedly high volume of the coating material on a coated particle, a 90 nm thick coating on a 5-micron particle is equivalent to about a micron particle of the coating material. Particles of the coating material, as well as uncoated particles, also decrease efficiency and brightness of a batch of coated particles containing a preponderance of coated particles where the coating material is different from the particles and a lesser amount of uncoated or partially coated particles and particles of the coating material. Particles made from the coating material are significantly reduced by this method.--

Please replace the paragraph beginning at p.14, line 10, with the

following rewritten paragraph:

pe --Reaction of the precursor component(s) may take place wholly or partially when the precursor solution is sprayed [formed] or in the zones which are [is] typically maintained at an elevated temperature.--

Please replace the paragraph beginning at p.15, line 7, with the following rewritten paragraph:

PH --The coating thickness on the particles can be varied, inter alia, by adjusting dilutions of the coating solution and/or by adjusting frequency of the atomizer, if an ultrasonic atomizer is used. Although a thicker coating will provide better protection to the particles, generally speaking, thick coatings cost more because more of the coating material is used and function of the particles may be jeopardized. For purposes herein, it has been found that coating thickness in the range of 1-1000 nm, more typically 2-200 nm, is suitable.--

Please replace the paragraph beginning at p.17, line 7, with the following rewritten paragraph:

5 --In this case, a 90 nm (15wt%) indium tin oxide coating on a Nichia ZnS:Ag,Cl phosphor particles composed of a mixture of particles of 1-7 microns in diameter and agglomerates 3-9 microns in diameter. A precursor solution was made by mixing in 250 ml of isopropyl alcohol, 1.1 g indium methyl (trimethyl) acetyl acetate and 0.054 g tin isopropoxide. Since the indium and tin alkoxides are not stable in the presence of water, the reaction was carried out in isopropanol that was previously distilled in the presence magnesium to

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remove any dissolved water from the solvent.--

Please replace the paragraph beginning at p.18, line 13, with the following rewritten paragraph:

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--A stock solution was made by mixing 0.08ml tetraethyl orthosilicate, 30 ml ethanol, 0.2 ml water and 0.62 ml hydrochloric acid. One gram of the same phosphor particles as in Ex. 1 was mixed with 2.1 m. of the stock solution and 600ml ethanol. The slurry, at room temperature and at pH of 4.2, was sprayed into a drying zone maintained, as in Ex.1, at 350°C and heat-treated at 450°C for 2 hours. X-ray diffraction of the coated powder showed the presence of ZnS and a broad amorphous hump from SiO₂. Scanning electron microscope investigation showed the presence of a coating on the particles while energy dispersive x-ray analysis showed the presence of Zn, S, Si and O. Immersing the coated and un-coated phosphor particles in 0.1 molar and 12 molar hydrochloric acid was used to determine continuity of the coating. After 10 minutes, the un-coated phosphor in 0.1 molar hydrochloric acid showed evidence of acid attack on its surface while the coated sample did not show any damage. The un-coated sample completely dissolved after immersion for 2 minutes in 12 molar hydrochloric acid whereas the coated sample was present after 5 minutes in 12 molar hydrochloric acid.--

Please replace the paragraph beginning at p.20, line 16, with the following rewritten paragraph:

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--This example details the steps to make yttrium-europium oxide luminescent coatings on the ZnS:Ag,Cl phosphor particles.--
